



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,588	09/29/2003	Bastiaan Lambertus Wilhelmus Marinus L. Van De Ven	081468-0306177	9983
909	7590	06/10/2005	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			MATHEWS, ALAN A	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2851	
DATE MAILED: 06/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/671,588

Applicant(s)

WILHELMUS MARINUS L. VAN DE
VEN ET AL.

Examiner

Alan A. Mathews

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature in claim 7 wherein “respective outer parts of the respective shutters move outside the storage space and respective inner parts of the respective shutters move into the storage space together with the patterning structure” must be shown or the feature(s) canceled from the claim(s). **No new matter should be entered.**

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

Art Unit: 2851

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. On lines 3-5, “respective outer parts of the respective shutters move outside the storage space and respective inner parts of the respective shutters move into the storage space together with the patterning structure” is confusing. How can the outer parts of the respective shutters move outside the storage space?

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1- 6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi (U. S. Patent No. 6,842,221) in view of Miwa (U. S. Patent No. 6,829,038). Figure 1 in Shiraishi discloses an illumination system including elements 1 and 2. Element 14 is the

Art Unit: 2851

support structure for the patterning structure R. Element WST is the substrate table for substrate W. Element RI in figure 1 is the reticule reserve room. Figure 9 and column 33, lines 17-67 and column 34, lines 1-65, disclose a third embodiment for reticule reserve room RI. Room 84 is the dust tight storage container which is arranged to be coupled with transfer container 88 through a closable (doors 88A and 92) passage (81b) between the transfer container 88 and the storage container 84. The patterning means R then travels from the storage container 84 to another room 83. Column 34, lines 53 and 54 recite a pressure-reducing unit and a pump being connected to rooms 83 and 84. With respect to claims 4 and 11, element 18 in figure 9 is a further chamber. With respect to claim 5, element 92 is the first shutter and element 88A is the second shutter. With respect to claim 9, Room 83 has slidable walls 22' and 21. Thus, Shiraishi discloses the invention except for room 83 being a vacuum chamber and 18 being a further vacuum chamber. Miwa discloses in column 5, lines 29-32, the concept **evacuating** closed vessel 20 and load-lock chamber 11 **instead** of using an inert gas. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to evacuate room 83 and room 18 in Shiraishi in view of Miwa for the purpose providing a better environment for the optics and as specifically taught by Miwa (i.e. the concept of using evacuation instead of using an inert gas).

5. Claims 1-3, 5, 6, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto (U. S. Patent No. 6,471,037) in view of Miwa (U. S. Patent No. 6,829,038). Matsumoto discloses in figure 1 and column 3, lines 26-67, a support structure 71 to support patterning structure, and a substrate stage 72 (wafer stage) for holding a substrate (wafer). Element 73 is the projection system. Element 6 could be considered a dust-tight storage

Art Unit: 2851

container defining a storage space. Figures 3A, 3B, 3C, and 3D disclose a transfer container 28 arranged to be coupled with the storage container 6. Column 4, lines 1-55, disclose carrier door 282 and load port door 33, which form the closeable passage between the transfer container 28 and the storage container 6. It is also noted that there is a reticule library 53 with a closeable door 533 inside element 6. With respect to claim 5, element 33 could be considered to be the first shutter and element 282 could be considered to be the second shutter. Figure 3C discloses the shutters moving simultaneously. Thus, Matsumoto discloses the invention except for disclosing a vacuum chamber. Miwa discloses in column 5, lines 29-32, the concept **evacuating** closed vessel 20 and load-lock chamber 11 **instead** of using an inert gas. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to evacuate element 6 is Matsumoto in view of Miwa for the purpose providing a better environment for the optics and as specifically taught by Miwa (i.e. the concept of using evacuation instead of using an inert gas).

Conclusion

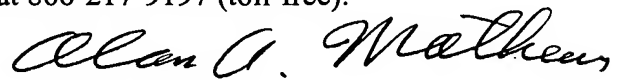
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents cited in the PTO-1449 are cited for the same reasons they were cited in Applicant's IDS. The patent to Chiba et al. is cited to show in figure 1 a mask cassette MCM and a vacuum pump. The patent to Nakahara et al is cited to show a reticule conveying device. The patents to Yoshitake et al. and Masujima et al. are cited for the same reasons they were cited in the Specification.

Art Unit: 2851

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan A. Mathews whose telephone number is (571) 272-2123. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alan A. Mathews
Primary Examiner
Art Unit 2851

AM